

19990523.ba v02\_n556.bam.990523 v02\_n557.bam.990523

>From ???@??? Sun May 23 12:37:04 1999  
Message-Id: <199905231601.LAA15141@sco.theporch.com>  
Date: Sun, 23 May 1999 11:00:04 CDT  
From: Old Tube Radios <boatanchors@theporch.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: BOATANCHORS digest 2556

BOATANCHORS Digest 2556

Topics covered in this issue include:

- 1) Wanted: Lambda 50 H.V. supply  
by Tom Smith <tsmith@hal-pc.org>
- 2) Books Sought  
by CARRJJ@aol.com
- 3) Re: Non PLL synchronous detector  
by "Arden Allen" <gumbear@pacbell.net>
- 4) Citizen's Band BA list: 'nother one...  
by "Tom R. Rice" <tomrice@netcom.com>
- 5) Need help finding transistors for RCA Broadcast Console  
by "Bruce J. Howes KG2IC" <bhowes@buffnet.net>
- 6) FS in the heat of battle!!!!  
by john <johnmb@mindspring.com>
- 7) Re: 2555  
by Jderm740@aol.com
- 8) Duck's ARC-5 Web Pages Up  
by David Stinson <arc5@ix.netcom.com>
- 9) Specs for Thordarson  
by john <johnmb@mindspring.com>
- 10) FS: Learavian, Monitor Radio, Heath VTVM, Advance Schools gen.  
by tbryan@nova.org
- 11) RE: Non PLL synchronous detector  
by "David Newkirk" <dpnewkirk@home.com>
- 12) RE: Non PLL synchronous detector  
by Bob Roehrig <broehrig@admin.aurora.edu>
- 13) RE: BC-TRFs / tweets, 6SH7s  
by polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
- 14) Items for Sale  
by <davidh@getnet.com>

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Message-ID: <3746853B.9B00BBAD@hal-pc.org>  
Date: Sat, 22 May 1999 10:21:47 +0000  
From: Tom Smith <tsmith@hal-pc.org>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>

Subject: Wanted: Lambda 50 H.V. supply  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi Group,

I'm looking for a Lambda Model 50 high voltage supply (rack mount as I'm outta bench space).

I have a BC-939-A antenna tuner commonly used on the BC-610 and is built for the "big one". Cover needs paint to look great but it's all there with all the military tags. \$75.00 plus shipping.

I also have the suitcase like wooden case for the Weston Model 0Q-3 tube tester. It's in very good shape with all the hardware and military tags (Navy). Free to a good home (plus shipping) before I render it down for hardware. If all you need is the tags, drop me a line and if no one wants the complete case, I'll send the tags.

Thanks! Tom N5AMA

-----  
From: CARRJJ@aol.com  
Message-ID: <a665f3b6.24782727@aol.com>  
Date: Sat, 22 May 1999 11:28:39 EDT  
Subject: Books Sought  
To: Old Tube Radios <boatanchors@theporch.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

I am looking to buy a copy of the following for my collection of ham literature:

1. ARRL "Gateway to Amateur Radio" set (including old license manual)
2. ARRL "A Course in Radio Fundamentals"

Please state condition and price.

Joe Carr K4IPV  
POB 1099  
Falls Church, VA 22041

-----  
Message-Id: <199905221626.JAA29018@mail-gw5.pacbell.net>  
From: "Arden Allen" <gumbear@pacbell.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Non PLL synchronous detector

Date: Sat, 22 May 1999 09:24:11 -0700  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 8bit

Hi David;

> .....A potential problem with a system using a crystal filter  
> as John describes will be that very little tuning error can be tolerated,  
> especially if we consider that the sharp response of the crystal affects  
the  
> phase of the signal it passes as well as its amplitude. And as Barry  
> mentions, the carrier phase is pivotal; get the carrier phase wrong and  
> we're on the way back to the serious distortion of selective fading.  
.....

> If we have a stable enough receiver  
> with fine enough tuning precision to manually and repeatably place the  
> incoming signal right where it needs to be in such a filter, we might  
> arguably be better off using sideband filtering and a product detector  
and  
> tuning the signal in as SSB. Any modern SSB transceiver is stable enough  
> after warmup, and having become addicted to selective-fading-free  
reception,  
> I'll take telephonic audio over the distortion blasts.

Forgive me for nit picking, but the forgoing excerpts seem to be  
contradictory. N'est pas?

> As Barry also mentions, using the signal's own carrier (after hard  
limiting)  
> really works well only if the signal is nonfading -- and if the signal is  
> nonfading, we can return to the simplicity of a well-engineered diode  
> detector, .....

That is the beauty of a heterodyne detector, you never have to give up  
using a nice linear detector. But the whole purpose of synchronous  
detection is to overcome the effects of selective fading. It really  
works. The ultimate mod is a synchronous heterodyne detector for your BA!

Hard limiting a carrier is done primarily by amplifying the hell out of it  
so that it gets cut off at the ankles as it passes through clipping diodes  
or a saturated amplifier. The beauty of the divide by two ( $910\text{KHz} / 2$ )  
circuit is the practically infinite gain of a multivibrator because of its  
positive feedback. Divider phase jitter would be a problem when the  
carrier dips into the mud except for the ringing of the crystal filter that  
"remembers" the phase.

> ..... the ultimate  
> skywave AM reception system would have to begin with good diversity  
> reception to minimize fading, .....

Not a practical consideration for a consumer oriented radio.

This little blip from <<http://153.96.172.2/press/1998/pidrm.html>> gives a hint as to what the future holds:

"Press Release

"Digital AM Consortium Agreement signed  
Guangzhou - 5 March 1998

"At a ceremony yesterday in Guangzhou, China, hosted by the Academy of Broadcasting Science of China, an agreement has been signed which should lead to improvements in reception quality and ease of tuning for AM radios. Twenty of the worlds most important broadcast-related organisations signed an greement to form Digital Radio Mondiale (DRM). This consortium will develop specifications for a new digital radio technology which promises interference-free AM listening and new data services. Many other organisations have indicated that they will join DRM in the near future.

"Speaking on behalf of the international broadcasters, Lodewijk Bouuvens, Director General Radio Nederlands explained that "Digital Radio Mondiale offers a single standard solution. It fills the missing link of fidelity that broadcasters, listeners and manufacturers have all been looking for".

" "...radio on medium and shortwave is the only way of effectively reaching a mass audience, scattered over large distances."

"Listeners will be able to hear short wave programmes free of fading and interference. The new receivers will search the wavebands to find the best signal and chnage frequency automatically when needed."

"The worldwide consortium brings together international broadcasters, research organisations, and broadcast equipment manufacturers. It is anticipated that standards could be ready for co-ordination with the International Telecommunications Union in about two years.

"Sets, expected to costs slightly more than a conventional short wave receiver, could be in the shops shortly after turn of the century. They will be multi-band AM/FM models, with digital medium and short wave and possibly long wave. Digital AM is expected to have a significant market in large coutries such as China and even the United States, where FM broadcasts, and will allow both mobile and portable receivers to operate without impairment in both urban and rural environments.

"The Digital Radio Mondiale consortium which signed the agreement today consists of:

"iAcademy of Broadcasting Sciences, China iAsia Pacific Broadcasting Sciences, Asia iBBC World Service, United Kingdom iContinental Electronics Corporation, United States of America iDeutsche Telekom AG, Germany iDeutsche Welle, Germany iFraunhofer-Gesellschaft, Germany iInternational Broadcasting Bureau, United States of America iMerlin Communications International, United Kingdom iNozema, The Netherlands iRadio France Internationale, France iRadio Nederland Wereldomroep, The Netherlands iRetelevision, Spain iSangean Electronics Inc, United States of America iSony International (Europe), iTechnology for Communications International, United States of America iTelediffusion de France, France iTecsun General, China iTelefunken Sendertechnik GmbH Germany iThomcast SA, France"

For more information do a web search on <Digital Radio Mondiale>. Cheers!

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

-----  
From: "Tom R. Rice" <tomrice@netcom.com>  
Message-Id: <199905221725.KAA11403@netcom17.netcom.com>  
Subject: Citizen's Band BA list: 'nother one...  
To: Old Tube Radios <boatanchors@theporch.com>  
Date: Sat, 22 May 1999 10:25:06 -0700 (PDT)  
MIME-Version: 1.0  
Content-Type: text/plain; charset=US-ASCII  
Content-Transfer-Encoding: 7bit

> Hammarlund, E. F. Johnson, Knight, Lafayette,  
> Midland, Morrow, Olsen, Pace, Pearce-Simpson, Poly-Comm, RCA, Raytheon,

There's another one of which I seem to have the only  
living copy: a Maxwell, which is gonna be heard on 10 meters  
about two hours after I find the special tool used for  
tweaking the coils. It's a tubey rig built on a PC board,  
so appropriate caution will be observed ;-)

73 de WB6BYH

--  
"Start off every day with a smile and get it over with." --W.C.Fields  
Tom R. Rice  
tomrice@netcom.com

-----  
Message-ID: <002b01bea47b\$ad935840\$4fbe1cd0@moriarty>

From: "Bruce J. Howes KG2IC" <bhowes@buffnet.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Need help finding transistors for RCA Broadcast Console  
Date: Sat, 22 May 1999 13:51:09 -0400  
MIME-Version: 1.0  
Content-Type: multipart/mixed;  
boundary="-----\_NextPart\_000\_0027\_01BEA45A.253206C0"

This is a multi-part message in MIME format.

-----\_NextPart\_000\_0027\_01BEA45A.253206C0  
Content-Type: multipart/alternative;  
boundary="-----\_NextPart\_001\_0028\_01BEA45A.253206C0"

-----\_NextPart\_001\_0028\_01BEA45A.253206C0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

Hello group,=20

I am working on a RCA Broadcast Console. It uses a transistor regulated =  
power supply, and I need to replace some of the transistors, the numbers =  
follow:

RCA 2N270  
RCA 2N1090  
ITT 2N456 qty of 2=20

I checked Digikey's Online catalog with no sucess. Being kind of new to =  
this solid state stuff where else would one look, what other vendors?=20

Also, if anyone has a schematic for this power supply it would be most =  
helpful. The model of the console is RCA RA7.=20

73,

Bruce KG2IC

\*\*\*\*\* =  
=20  
Bruce J. Howes KG2IC email: kg2ic@arrl.net  
East Amherst, NY 14051 web: www.buffnet.net/~bhowes  
FISTS #4164 ARMY MARS AAR2AJ  
\*\*\*\*\*=



-----=\_NextPart\_001\_0028\_01BEA45A.253206C0--

-----=\_NextPart\_000\_0027\_01BEA45A.253206C0

Content-Type: text/x-vcard;

name="Bruce J. Howes.vcf"

Content-Transfer-Encoding: quoted-printable

-----

Message-Id: <3.0.3.32.19990522140831.00b531c0@mindspring.com>

Date: Sat, 22 May 1999 14:08:31 -0400

To: Old Tube Radios <boatanchors@theporch.com>

From: john <johnmb@mindspring.com>

Subject: FS in the heat of battle!!!!

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

For Sale: EF Johnson Viking Invader 200. All original knobs, cabinet. No extra

holes that I know of. Makes RF on 20M, not much on others. Good PS, good 6146's. About an 8/10 (jpgs upon request). Include copy of manual. Clean rig in nice shape, with nothing missing.

I've decided that SSB transmitters are smarter than I am.  
(which might not be saying much).

Price: \$125 if you're near Raleigh NC.

Thanks!

/John

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From: Jderm740@aol.com

Message-ID: <3f24db54.2478a7cc@aol.com>

Date: Sat, 22 May 1999 20:37:32 EDT

Subject: Re: 2555

To: Old Tube Radios <boatanchors@theporch.com>

MIME-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

Content-Transfer-Encoding: 7bit

Barry

You brought tears to my eyes. Has anyone done a geneology on all those names so that we might still make contact with them? I was suprised when the name J.W. Miller was still viable. And I'd like to make contact with them again. For years I have been out of the mainstream because my work went in another direction and consumed all my time. Now that I'm retired I have the time to fiddle around with radios again.



Jack

-----  
Message-ID: <3747597D.6E0FED4A@ix.netcom.com>  
Date: Sat, 22 May 1999 20:27:25 -0500  
From: David Stinson <arc5@ix.netcom.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Duck's ARC-5 Web Pages Up  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Dewayne Moore's fine ARC-5 web pages are back on line at  
my arc5.com domain. Check them out at:

<http://www.arc5.com/duck/>

I'm working on updating some of the links.  
Some day I might even get my own pages going...  
Stranger things have happened ;-)

73 DE Dave AB5S

-----  
Message-Id: <3.0.3.32.19990523073738.00b4dd1c@mindspring.com>  
Date: Sun, 23 May 1999 07:37:38 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: john <johnmb@mindspring.com>  
Subject: Specs for Thordarson  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

My catalogs are too new, I think. Does anyone know  
the spec's for a Thordarson Plate Transformer:

T16P01  
/John

-----  
Message-Id: <3.0.5.32.19990523095913.01a8e350@mail.nova.org>  
Date: Sun, 23 May 1999 09:59:13 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: tbryan@nova.org  
Subject: FS: Learavian, Monitor Radio, Heath VTVM, Advance Schools gen.  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Hello All,

I have several items for sale.

1. Learavian receiver. It is 3 bands, 200-400kc, 550-1500kc, and 2.2-6Mc. The case looks terrible. The electronics look good and it works on the AM broadcast band. Sold as-is. Price is \$25 plus shipping.
2. Monitor Radio model M-51 by Radio Apparatus Corp. Covers 30-50Mc continuous tuning.  
sold not working, as-is (probably a bad vibrator). Price is \$5 plus shipping.
3. Advance Schools Inc RF generator model IGB-102. It looks like it is either Heath, Eico, or Knight kit. It is clean, sold as-is untested, price is \$5 plus shipping.
4. Heathkit IM 5228 VTVM very dirty condition, no probe. Being sold as-is untested. Price is \$5 plus shipping.

Tom Bryan  
tbryan@nova.org

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From: "David Newkirk" <dpnewkirk@home.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: RE: Non PLL synchronous detector  
Date: Sun, 23 May 1999 10:40:34 -0400  
Message-ID: <000001bea52a\$3716c080\$11670518@cc328679-a.vron1.nj.home.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Arden Allen wrote:

> using a crystal filter  
> > as John describes will be that very little tuning error can be  
> tolerated ...  
  
> > If we have a stable enough receiver  
> > with fine enough tuning precision to manually and repeatably place the  
> > incoming signal right where it needs to be in such a filter, we might  
> > arguably be better off using sideband filtering and a product detector  
> and  
> > tuning the signal in as SSB. Any modern SSB transceiver is stable enough  
> > after warmup, and having become addicted to selective-fading-free  
> reception,  
> > I'll take telephonic audio over the distortion blasts.

> Forgive me for nit picking, but the forgoing excerpts seem to be  
> contradictory. N'est pas?

No, they're not. More below the next excerpt.

> That is the beauty of a heterodyne detector, you never have to give up  
> using a nice linear detector. But the whole purpose of synchronous  
> detection is to overcome the effects of selective fading. It really  
> works. The ultimate mod is a synchronous heterodyne detector for your BA!

To put it more definitively, the purpose of reinserting the carrier locally is to overcome the effects of selective fading. Doing so requires great relative frequency stability and high tuning precision.

By relative stability, I mean that the transmitted and reinserted carriers must drift very little relative to each other. By tuning precision, I mean that the reinserted carrier must be close enough in frequency to the carrier it replaces that the listener can't tell the difference.

Sufficient relative stability is easy to come by nowadays because modern broadcast transmitters are as or more stable than our consumer receivers. High tuning precision is also easy to come by nowadays, with 10-Hz tuning steps now standard in ham sets and 1-Hz steps becoming more common.

The maximum tuning error is half the smallest tuning step available. (The worst case is that the incoming signal will lie exactly halfway between two steps.) In heterodyne reception, the maximum *\*tolerable\** tuning error depends on the listener and the type of audio demodulated, *\*and whether or not both sidebands are being used\**.

The last point is pivotal. To illustrate it, forget rotating vectors and just consider the effect trying to heterodyne-detect a 1-kHz-modulated DSB AM signal with 1 Hz tuning error *\*without selectable sideband reception\**. Demodulating one sideband results in a tone that's 1 Hz too high; demodulating the other results in a tone that's 1 Hz too low. The listener hears them both, *\*and\**, because of the nonlinearity of our ears, hears their 2-Hz beat as well. (If you think you can't hear a 2-Hz beat *\*that's produced in your head\**, hum along the next time you vacuum-clean a room and vary your hummed tone above and below the vacuum's drone. You'll *\*feel\** the beats in addition to hearing them.)

This sidebands-beating-with-each-other problem goes away entirely if we toss away either sideband. This is the mean reason we can tolerate so much tuning error in SSB communications: Demodulation errors that merely result in shifted (that is, incorrect) pitches bothers us much less than demodulation errors that cause bothersome, low-frequency IM products in our heads. (Every time I hear a snippet of received-off-air SSB in a movie or SWL program, I'm amazed at how badly people generally tune SSB voice "on the nose." Listen to

any SSB net and you'll receive an equivalent education.)

This is why using a modern SSB receiver to receive AM as SSB is the simplest cure for selective fading. The BFO takes care of the carrier-trough problem, and tossing away one sideband solves the sidebands-beating-with-each-other problem. The user tunes as accurately as his or her pitch perception requires or allows. Heterodyne reception, not synchronous detection, is what banishes the worst effects of selective fading.

The remaining problem, pitch shift due to heterodyning the sideband(s) back to audio with a carrier of the wrong frequency, is what *\*synchronous\** heterodyne detection solves. In doing so, however, it also *\*incidentally\** solves the sidebands-beating-with-each-other problem--at least, it solves the problem of *\*every\** frequency in each sideband beating with its error-frequency-shifted opposite sideband counterpart simultaneously (the comb-filter intersideband effects of skywave propagation will still obtain). That a sync detector can, depending on its design, incidentally solve tuning error *\*and\** intersideband beating makes it a worthwhile addition to a reasonably stable BA. (The Canadian AR-77 clone I experimented with briefly in this connection--I think it was a CR-91 or -100--gave *\*excellent\** results with the July 1993 QST detector when adjacent channel signals were absent. Amazingly, its AGC also worked well, if with a too-rapid-decay, on CW--a tribute not only to its AGC attack, but also on its HFO and BFO stability versus supply voltage.)

I believe that any means of crystal-filtering and reinserting the carrier, or its derivative, will involving tuning stability and precision requirements on par with the requirements of heterodyne detection--but note that such a system is not synchronous, is not phase-locked. This is why I said that if you have a tuning system capable of such stability and tuning precision, you're already set up for much less-complicated option of using a BFO and selectable sideband reception for excellent AM-as-SSB reception, albeit subject to the frequency-response limitations of the sideband filter. (To give you an idea of how serious I am about this, I replaced the stock 2.4-kHz-wide 9-MHz filter in an IC-737A with a 2.8-kHz-wide job. After extensive BFO, AGC and IF modifications [still to be finalized :-D], it sounds wonderful. My IC-756 is much more stablen and tunes in 1-Hz steps, but its SSB filter is too narrow and its AGC-line-related IMD is just tolerable.)

> [Diversity reception] Not a practical consideration for a consumer oriented radio.

True; this is why sync detectors--and there's a woefully broad idea of what manufacturer's consider a useful sync detector to be--are common in higher-end SWL receivers. But for a skywave-radio aficionado, which I am, diversity reception is a possibility. For the space-limited folk who have do room for an outdoor antenna, I believe that *\*polarization( diversity is a*

worthwhile thing to try.

As for digital shortwave, I have high hopes for it, but I'll believe it when I see (er, hear) it--simply because I hear reports that digital audio broadcasting and digital TV trials reveal that the current techniques are far less forgiving of signal degradation, and tolerate degraded signals far less gracefully, than our current analog methods. Factor in the issue that the audiences for whom skywave analog broadcasting is still a pivotal part of their information diet--that is, third-world non-hobbyists--are exactly the audiences least likely to be able to be early adopters of digital reception, and you have another quad FM, AM stereo, or SSB SWBC debacle in the making.

Finally: Remember how often we've seen the statement that "the carrier doesn't carry anything?" That statement has always been wrong for two very important reasons. For one thing, the carrier carries (serves as) the 0-Hz referent for the sidebands. Yes, as Costas illustrated, the reference can indeed be inferred as the point exactly between the upper and lower sidebands. But what the carrier also carries (serves as) is the heterodyning energy, at sufficient strength and in the proper phase, necessary to return the sidebands to their proper audio frequencies merely by passing them through a simple amplitude-nonlinear element, such as a diode. \*And\* the carrier can serve to control the gain of the receiver--with few additional components, if all you want to do is keep from being blown out of your chair, or many additional components, if you want to do linked compression and expansion, or somesuch. All in all, I'd say that full-carrier DSB AM is pretty darned elegant, considering how early, easily and widely it was adopted. Moving away from that elegance--and there are sound reasons for doing so, including the destructive effects of selective fading, and transmitter economics--requires considerably more "smarts" in the receiver and/or transmitter, and the people involved with them.

73,

Dave Newkirk, W9VES  
dpnewkirk@home.com

-----  
Date: Sun, 23 May 1999 10:24:04 -0500 (CDT)  
From: Bob Roehrig <broehrig@admin.aurora.edu>  
To: Old Tube Radios <boatanchors@theporch.com>  
cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: RE: Non PLL synchronous detector  
Message-ID: <Pine.0SF.3.96.990523101717.28988B-100000@admin.aurora.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Sun, 23 May 1999, David Newkirk wrote:

> But for a skywave-radio aficionado, which I am, diversity reception is a  
> possibility. For the space-limited folk who have do room for an outdoor  
> antenna, I believe that \*polarization( diversity is a worthwhile thing  
> to try.

Several years ago I played around with a diversity system, mostly to receive the W1AW RTTY bulletins. It was a worth-while project. I used a pair of Kenwood R-1000 receivers, one horizontal antenna, one vertical. The comparator simply looked at the AGC levels in the two receivers and switched the audio output accordingly.

Polarization diversity does work. So does space diversity if you have the room. Of course with W1AW (when the band conditions were good) I could also use frequency diversity, tuning them in on 2 different bands. The system also worked well with WWV and SW BC stations.

"Nostalgia is a thing of the past"

E-mail: broehrig@admin.aurora.edu or k9eui@arrl.net 73 de Bob, K9EUI  
CIS: Data / Telecom Aurora University, Aurora, IL  
630-844-4898 Fax 630-844-4222

-----  
Date: Sun, 23 May 1999 12:01:00 -0400  
From: polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)  
Message-Id: <199905231601.MAA06972@aa4rm.ba-watch.org>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: RE: BC-TRFs / tweets, 6SH7s

Dave these 'stagger turned' hi-fi TRFs seem to occupy a rarified zone right before the advent of FM. The Miller art'l notes the idea was propounded by Wetherly in a 2/37 Electronics art'l.

Miller used his 'negative mutual coupling' bifilar coils & Meissner, perhaps to avoid a suit, didn't.

Turns out Meissner built the 2x6K7 thing in the 50s with 6BA6s since the fella that has the undocumented 6K7 Meissner double-tuned TRF has the mini-tube version too - & guy is a power supply designer & didn't have the vaguest how this thing worked. Were it not for my scoping the ckt. @ Dayton, he'd still be expounding "say stuff\*" on the design... that he wasn't sure was superhet or trf.

Well neither broadband BC TRF is in the Meissner catalogs & it's my guess they were special orders for the likes of Gates (not M'soft) or Continental (certainly not RCA) as station monitors.

I SAID guess.

Now on the 6SH7s. I agree on the cut-off characteristics. 6SH7s just happened to occupy the sockets of the homebuilt - perhaps to improve the sensitivity? ('37 Miller art'l says RX only useful in BC near-field since noise & atmospheric override when you're "in the stix")

Now on tweets & 910kc. For simple math, consider instead a 500 kc IF & a 1000kc BC stn. Does that IF pick up every other RF wave peak to let it thru? Must be because if the RX local osc. is above incoming freq. (as usual), then it's at 1500kc & the diff. is 500kc. The sum is 2500kc & way outa passband.

So this "freq. div. phenom" must be at work. Never thotta that. Math RULES

That's all that's fit to print,

Marty

\*now on folklore engineering & "say stuff"

CONTROVERSY CONTROVERSY CONTROVERSY

The 804 pentode (caged frog) was to the 814 (beam tet.) as the 803 was to the 813... w. 813's exception of button VHF basing.

Both design pairs did about the same class C stuff. However the beam formers smoothed beginning of conduction - the Brits called this "kinkless tetrode (KT) design."

RCA sold it as a power booster - NOT SAYING 'cause you could now go AB2 w/o hideous distort'n. So a generation of "folk-procedure 'engineers'" bought the program thinking in Homer Simpson ways. "MMMMmmm good, beam power - more watts (per \$ or something)"

this was a thread that got lost on itself months ago & settled into a aimless broth of controversy over 804 vs. RK20 filament design, etc.

HOORAY FOR HOLLYWOOD (RCA'S advertising dept.)

-----WELL WASN'T THIS A MOUTHFUL????-----

-----

Message-Id: <199905231559.KAA14967@sco.theporch.com>  
Subject: Items for Sale  
Date: Sun, 23 May 99 16:59:01 +0100  
From: <davidh@getnet.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"

I have the following items for sale. Shipping is included unless stated.  
Pictures and more details can be seen at:

<http://www.getnet.com/~davidh/forsale.html>

Ameco CB-2 Converter - \$25 Shipped

Heathkit QF-1 Q- Multiplier - \$25 Shipped

Heathkit HM-11 SWR Bridge - \$40 Shipped

BC-906E Frequency Meter - \$100 + Shipping

Realistic DX150A Communications Receiver - \$65 + Shipping

-----  
73,

Dave N7RK

\*\*\*\*\*

Dave N7RK - Webmaster CADXA  
Phoenix, Arizona            \*DXCC Honor Roll\*        \*WAZ#23 - 75 Meter SSB\*

ex-N7RK/ZB2, VK2ERK, ZM0AJN, WB6NRK, WN6IWX

Boatanchor Collector Extraordinaire preferring Hallicrafters, National  
and what ever else looks interesting!

E-Mail: [davidh@getnet.com](mailto:davidh@getnet.com)  
My Home Page: <http://www.getnet.com/~davidh>

Visit the Central Arizona DX Association Home page - <http://cadxa.org>



-----  
End of BOATANCHORS Digest 2556

\*\*\*\*\*

>From ???@??? Mon May 24 06:54:35 1999  
Message-Id: <199905232248.RAA20295@sco.theporch.com>  
Date: Sun, 23 May 1999 17:48:42 CDT  
From: Old Tube Radios <boatanchors@theporch.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: BOATANCHORS digest 2557

BOATANCHORS Digest 2557

Topics covered in this issue include:

- 1) Minerva Matter  
by polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
- 2) Re: 6 Mtr Military Radios- Calling Freqs.  
by "Joseph W. Pinner" <kc5ijd@sprintmail.com>
- 3) Re: BOATANCHORS digest 2556  
by ALanger394@aol.com
- 4) WTB: Globe/WRL LA-1 Linear  
by john <johnmb@mindspring.com>
- 5) WTB HT-37 Sideband Generator Sub-Assembly  
by "Roecker, Greg" <greg.roecker@lmco.com>
- 6) Re Minerva  
by philip mccooy <dgnova@erols.com>
- 7) Re: Non PLL synchronous detector  
by "Arden Allen" <gumbear@pacbell.net>
- 8) FS Hickok 750 tube tester  
by tbryan@nova.org
- 9) SCR-274-N Manuals  
by Bob <rsrolfne@atnet.net>
- 10) RE: Non PLL synchronous detector  
by "David Newkirk" <dpnewkirk@home.com>
- 11) RE: BC-TRFs / tweets, 6SH7s  
by "David Newkirk" <dpnewkirk@home.com>
- 12) RE: BC-TRFs / tweets, 6SH7s  
by polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
- 13) "RJ Press"  
by "Roberta J. Barmore" <rbarmore@indy.net>
- 14) RE: BC-TRFs  
by Scott Robinson <spr@earthlink.net>
- 15) WTD: ARRL Mobile Logbook  
by "Richard W. Solomon" <w1kszt@tiac.net>

16) Estate sale  
by Gary Gitzen <garyg@cup.hp.com>

-----  
Date: Sun, 23 May 1999 12:57:45 -0400  
From: polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)  
Message-Id: <199905231657.MAA07023@aa4rm.ba-watch.org>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Minerva Matter

I got a big wood Austrian table radio at Dayton

On it's intact back it says:

Minerva 405W Wein

Has following tubes:

EL-11 output (replaced by 6F6, that's how I know)  
EFM-11 magic eye (peers thru dial-glass, thIk)  
AZ-11 rect. (looks like baloon UX280, on pwr xfrmr top. thIk)  
ECH-11 pentagrid converter (right place for one, thIg)  
EBF-11 pentode [caged frog], triode, diode (needed to finish superhet,  
thIg)

Tube bases have big key-post like US & British octals. New to me.

Since rect. looks like UX280 I guess it's pre-war. But ECH-11 & EBF-11  
in metal cans making 'em look like 6H6s on steroids.

Speaker in trad'l euro-radio loose-woven drawstring bag.

I'd LOVE a ckt. diag. or, at least, the tube-base pin-out.

Simply must hear it sing Lili Marleine again

Thanks,

Marty

AND IT'S GOT TUBES & GETS 160M SO THE POST PASSES MUSTARD - D'OH

-----  
Message-Id: <199905231749.KAA25704@raven.prod.itd.earthlink.net>  
Subject: Re: 6 Mtr Military Radios- Calling Freqs.

Date: Sun, 23 May 1999 11:53:09 -0600  
From: "Joseph W. Pinner" <kc5ijd@sprintmail.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"

>The Military Collector's Group mailing list,  
>a major group of internet-connected military radio collectors,  
>has settled on 6-meter calling frequencies for our  
>green VHF military radios like the BC-620, BC-659,  
>PRC-6, PRC-10, RT-70, RT-68 and others.  
>  
>51.0 MC FM General local use, in the tradition of 3885 KC.  
>      Re-enactment groups, field days, special events etc.  
>  
>51.6 MC FM DX calling frequency for military rigs.  
>      For the stout-hearted who want to work  
>      across the pond with their PRC-10.

Dave,

There is one issue here which you did not mention - that of tone squelch  
in some of the more recent and quite common radios, i.e. PRC-25, -77,  
etc. which many of us use in addition to the 40s and 50s era stuff.

I don't have an answer, just noting the issue.

73

Joseph W Pinner +  
Lafayette, LA  
KC5IJD / NNN0PHR  
EMail: kc5ijd@sprintmail.com

-----  
From: ALanger394@aol.com  
Message-ID: <ad1ac075.2479a5a1@aol.com>  
Date: Sun, 23 May 1999 14:40:33 EDT  
Subject: Re: BOATANCHORS digest 2556  
To: Old Tube Radios <boatanchors@theporch.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

Hi All

Going on vacation for a couple of weeks

is it possible to suspend receiving the digest ?

Thanks

Allan

-----  
Message-Id: <3.0.3.32.19990523144635.00b6dc10@mindspring.com>  
Date: Sun, 23 May 1999 14:46:35 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: john <johnmb@mindspring.com>  
Subject: WTB: Globe/WRL LA-1 Linear  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

I had one of these and foolishly (?!) sold it a few years ago (it does happen OCCASIONALLY).

Anyone have one for sale?

Best  
/John

-----  
Content-return: allowed  
Date: Sun, 23 May 1999 15:02:52 -0400  
From: "Roecker, Greg" <greg.roecker@lmco.com>  
Subject: WTB HT-37 Sideband Generator Sub-Assembly  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: n4osj@yahoo.com  
Message-id: <716897408033D111BA8C0000F805CC84034F9DA1@emss04m07.ems.lmco.com>  
MIME-version: 1.0  
Content-type: text/plain; charset=iso-8859-1  
Content-transfer-encoding: 7BIT

I am looking for a complete sideband generator sub-assembly for an HT-37.  
Anyone have one they could part with?? . . . please reply to:

greg.roecker@lmco.com

Thanks, and 73,

Greg Roecker / N4OSJ  
Roswell, Georgia

> -----  
> Greg Roecker

> Lockheed Martin - Integrated Business Solutions  
greg.roecker@lmco.com  
> Voice: 770.698.5226  
>

-----  
Message-ID: <37487BA7.6CCF@erols.com>  
Date: Sun, 23 May 1999 15:05:27 -0700  
From: philip mccooy <dgnova@erols.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re Minerva  
Content-Type: text/plain; charset=us-ascii; name="AN1.TXT"  
Content-Transfer-Encoding: 7bit  
Content-Disposition: inline; filename="AN1.TXT"

Marty those tubes are referred to as "eisenrohr" or iron tubes.  
Came out in Germany about 1939. Used in some German military  
radios.

I have a diagram for the Minerva 405 but it seems different from  
your radio. It has ECH3 converter, EF9 IF, EF6 first audio, EBL1  
detector and audio output, with EM1 eye tube.

If you can't find a schematic for the 405W I can send you a copy  
of this one. Not the same, but might help.

For tube diagrams,

3 pins on top and 5 pins on bottom. Pin 1 is middle pin on  
set of 5 pins.

Most tube elements are horizontal not vertical as US tubes are.

ECH-11

Pin 1 filament  
Pin 2 OSC grid  
Pin 3 osc plate  
Pin 4 mixer screen  
pin 5 mixer signal grid  
pin 6 cathode and metal shield  
pin 7 mixer plate  
pin 8 filament

EBF-1

pin 1 filament  
pin 2 diode plate

pin 3 diode plate  
pin 4 pentode screen  
pin 5 pentode grid  
pin 6 cathod and metal shield  
pin 7 pentode plate  
pin 8 filament

#### EFM-11

pin 1 filament  
pin 2 nothing  
pin 3 pentode screen and eye target  
pin 4 pentode plate  
pin 5 pentode grid  
pin 6 cathode  
pin 7 target plate  
pin 8 filament

Note target control internally connected to pentode screen

#### EL-11

pin 1 filament  
pin 2 no conection  
pin 3 plate  
pin 4 screen  
pin 5 grid  
pin 6 cathode  
pin 7 no conection  
pin 8 filament

#### AZ-11

pin 1 filament  
pin 3 plate  
pin 4 plate  
pin 8 filament

Note: 4 volt filament

#### Notes:

The europeans quite often used the triode section of the eye tube, EM1 as a combined first audio and eye imput.

The AZ rectifier has a 4 volt filament, while type 80 as 5 volt.  
About the same other wise.

The EBF is a diode pentode.

-----

Message-Id: <199905231905.MAA11921@mta3.snfc21.pbi.net>  
From: "Arden Allen" <gumbear@pacbell.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Non PLL synchronous detector  
Date: Sun, 23 May 1999 12:00:09 -0700  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

Hi again David;

You do an excellent job of explaining the merits of heterodyne reception and it's one shortfall of intersideband intermodulation effects as a result of carrier reinsertion that's not dead on. And, yes, synchronous detection solves that problem.

But that's not what I'm on about. You mentioned a requirement for phase accuracy in the paragraph that I quoted and here it is again:

> .....A potential problem with a system using a crystal filter  
> as John describes will be that very little tuning error can be tolerated,  
> especially if we consider that the sharp response of the crystal affects the  
> phase of the signal it passes as well as its amplitude. And as Barry  
> mentions, the carrier phase is pivotal; get the carrier phase wrong and  
> we're on the way back to the serious distortion of selective fading.

The critical phrase in this quote is ".....affects the phase of the signal....."

And then you return to this thought in your reply below:

> .....But what the carrier also carries (serves as) is the heterodyning  
> energy, at sufficient strength and in the proper phase, necessary to  
> return  
> the sidebands to their proper audio frequencies .....

".....and in the proper phase....."

So this is what I am questioning: How is it you mention phase as a factor in detection yet you also claim that low drift and tuning accuracy will do the job in a heterodyne detection system? How can you control the phase (that you seem to be concerned with) in a non-synchronous detector?

>From what little head scratching I've done, if the proper phase isn't maintained then the detector may find itself at a point in the sideband-carrier phase relationship that produces minimal (and with likely exaggerated distortion products) output (minimal conversion function). Not

being able to manage the math I determined this graphically, and of course it assumes the detector is free of nonlinearity. So it seems to me you allude to the importance of phase relationship and also seem to discount its importance. I don't think you can have it both ways, IIMSSM.

On AM being elegant, 'tis so because of its simple implementation without all the need for distortion producing signal processing and filtering. But SSB reduced carrier has all of the advantages you sight plus spectrum and power efficiency improvement assuming it is being received with a decent synchronous detector.

I mentioned 'heterodyne detection' in my reply. I was referring to a simple diode detector where sufficient BFO (carrier reinsertion) amplitude in relation to signal amplitude is utilized to produce a low distortion demodulation of an SSB signal. It is generally accepted that a 10 to 1 ratio of BFO to signal is required for low distortion. The inherent linearity of a detector diode makes for a great AM detector and when used as a heterodyne detector the result is low distortion in recovering the audio. It works well in practical implementation as I have such a mod in my SP-600. All I have to do to go from AM to SSB (or CW) is switch on the BFO. The audio output remains the same, no fiddling with the volume control. With the SP-600's separate AVC detector you don't have to bother with the RF gain control either.

With regard to digital broadcasting. We've been treated to the 'benefits' of digital television for some time now, when the path drops out the picture freezes as the screen is refreshed from video memory. Our eyes, in effect are parallel loaded, we see the whole picture simultaneously. Not so with audio, we hear sound "serially". If you were to store a moment of sound you would hear a continuous tone. So when the path is interrupted the sound output freezes "off". Dead silence. Since the advent of digital cell phones I have suffered through conversations where all I heard were bits and pieces of speech that became totally incomprehensible and I had to ask for repeats many times. With the same person going through the poor coverage area on an analog phone I could always hear the deterioration of the path before intelligibility was interrupted and it was easier to manage the conversation. No apparent advantage to digital there. And so I have the same reservations as you do, David, the proof will be in the pudding in the sky (if you don't mind mixed cliches.....hi!). 73.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

-----  
Message-Id: <3.0.5.32.19990523153303.008ca6a0@mail.nova.org>  
Date: Sun, 23 May 1999 15:33:03 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: tbryan@nova.org  
Subject: FS Hickok 750 tube tester



Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Hello All,

I have for sale a Hickok model 750 tube test. The case is in really bad shape mostly from moisture damage and the lid is badly broken. The good news is that the tube tester itself is not too bad. I tried it on a couple of tubes and it worked fine. It comes with the CA-4 compactron and nuvistor adapter and the manuals. Because of the hideous condition of the case I am selling it as-is. The price is \$65 plus shipping.

Tom Bryan  
tbryan@nova.org

-----  
Message-ID: <37485EBD.F00D863E@atnet.net>  
Date: Sun, 23 May 1999 13:02:05 -0700  
From: Bob <rsrolfne@atnet.net>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
CC: BOATANCHORS List <BOATANCHORS@listserv.tempe.gov>,  
Boatanchors List <boatanchors@sco.theporch.com>,  
"glowbugs@piobaire.mines.uidaho.edu"  
<glowbugs@piobaire.mines.uidaho.edu>,  
"Ham-Boatanchors@uscd.edu" <Ham-Boatanchors@uscd.edu>  
Subject: SCR-274-N Manuals  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Greetings - Just found two most interesting W.W.II manuals marked  
HANDBOOK OF INSTRUCTION for the SCR-274-N [ARC-5] radio set.

The first is Technical Order number 08-10-50 dated Feb. 28, 1942. Its  
marked Preliminary and is about 120 pages.

The second has the same number but is dated 15 Feb. 1943 with revision  
number 1 Oct. 1945, is just over 200 pages and looks to be the final  
manual from Aircraft Radio Corporation. Lots of fold outs drawings and  
pictures of every system component.

If there is any interest I will have a copy made for you. The cost of  
the primary manual would be \$15 and the final manual \$20 plus postage.

I'm open to questions, etc.

Thanks for the read

73's Bob W7AVK

-----  
From: "David Newkirk" <dpnewkirk@home.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: RE: Non PLL synchronous detector  
Date: Sun, 23 May 1999 16:27:13 -0400  
Message-ID: <000001bea55a\$a4887ac0\$11670518@cc328679-a.vron1.nj.home.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Arden Allen wrote:

> So this is what I am questioning: How is it you mention phase as a factor  
> in detection yet you also claim that low drift and tuning accuracy will do  
> the job in a heterodyne detection system? How can you control the phase  
> (that you seem to be concerned with) in a non-synchronous detector?

What I meant is that tuning accuracy, including carrier phase accuracy, is of pivotal importance if you're using both sidebands in demodulation, and of much less importance if you've sliced off one sideband. Once you've tossed away one sideband, tuning errors amount only to phase errors (at tuning errors < 1 Hz) and pitch errors (at tuning errors = and > 1 Hz).

With practice, and depending on the program source, I can generally tune to my IC-756's nearest 1-Hz step by ear; I can aurally tolerate considerably more error. What makes it all work is the sideband filtering and the relative stability of the IC-756 and transmitter, and I can listen to such received-as-SSB AM for hours, including programs that contain music.

Were I trying to do the same thing without sideband selectivity, the result would be pretty bad much of the time--but, I add, entirely acceptable for voice communication. I have some experience with DSB suppressed-carrier ham communication--how about four (or was it eight?) 6AQ5s as a power balanced modulator? :-D--and, with voice, the aural horror show predicted by theory for nonsynchronous DSB reception just doesn't happen; the message still gets through. But radiating an extra, unnecessary sideband is indeed spectrally wasteful; radiating the carrier is more an issue between the transmitter operator and the company that computes the electric bill. (Although a talk with an old-timer about 1930s ham-phone-band conditions will give you quite an education about heterodyne interference, something that essentially disappeared with the widespread acceptance of suppressed-carrier SSB.)

BTW, I don't think for a minute that DSB AM, carrier or not, is a defensible alternative to suppressed-carrier SSB for pure communication. For \*hobby\* purposes, and ham radio is blessedly a hobby first and a communications

service second, DSB AM, carrier or not, is defensible in the manner that driving vintage cars is defensible for a vintage-car enthusiast.

73,

Dave Newkirk, W9VES  
dpnewkirk@home.com

-----  
From: "David Newkirk" <dpnewkirk@home.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: RE: BC-TRFs / tweets, 6SH7s  
Date: Sun, 23 May 1999 16:59:24 -0400  
Message-ID: <000101bea55f\$230d4160\$11670518@cc328679-a.vron1.nj.home.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Marty wrote:

> Well neither broadband BC TRF is in the Meissner catalogs & it's  
> my guess they  
> were special orders for the likes of Gates (not M'soft) or Continental  
> (certainly not RCA) as station monitors.

I recall a AM chief engineer friend of my talking about his TRF station monitor long ago. Life gets easy when you're interested only in receiving a spot frequency. Think I'll build one for my local WNYC-820, which is really a challenge after pattern change at night.

> I SAID guess.  
>  
> Now on the 6SH7s. I agree on the cut-off characteristics. 6SH7s  
> just happened to occupy the sockets of the homebuilt - perhaps to  
> improve the sensitivity? ('37 Miller art'l says RX only  
> useful in BC near-field since noise & atmospheric override when  
> you're "in the stix")

Your sensitivity-increase idea is probably on target, however off-base the modifier may have been. Sensitivity just plain isn't a problem at MF; maybe overall gain was.

> Now on tweets & 910kc. For simple math, consider instead a 500 kc IF & a  
> 1000kc BC stn. Does that IF pick up every other RF wave peak to let it  
> thru? Must be because if the RX local osc. is above incoming freq.  
> (as usual), then it's at 1500kc & the diff. is 500kc. The sum is  
> 2500kc &

> way outa passband.

Tweet happens because harmonics of a radio's own IF channel get back into its front end and beat with incoming signals. But there are other ways a radio's IF (and its BFO) can get into the act. For years, my father and I wondered why we heard a high-pitched tone and modulation components whenever we grabbed the XTAL PHASING knob on our SX-24 during CW reception. It turned out that Hallicrafters had scrimped on the set's design by (among other things :-D) leaving the PHASING cap rotor hot for RF--\*and\* significant BFO energy was getting into the set's first IF grid. Grabbing the PHASING knob coupled enough energy from a local 9xx kHz broadcaster into that part of the circuit to allow the BFO to convert the AMer to a frequency a few kilohertz off the center of the SX-24 IF. Beating against that new signal on its fundamental, the BFO also dutifully converted the new signal to high-pitched audio.

Trivia: Want to see if BFO energy is getting into the a radio's IF ahead of its crystal filter? Set the set up for maximum CW selectivity and twist the BFO tuning rapidly past the crystal frequency. If BFO's getting in ahead of the crystal, you'll hear a "boip" that increases in pitch as you flip the BFO tuning across the crystal frequency faster. Reason for the "boip": The crystal time-delays signals passing through it, so the faster the BFO slews by the crystal resonance, the greater the frequency differential between the delayed BFO signal and the nondelayed BFO signal waiting to heterodyne the delayed signal to audio at the end of the IF.

> -----WELL WASN'T THIS A MOUTHFUL????-----

Yep. But a \*tasty\* mouthful.

73,

Dave Newkirk, W9VES  
dpnewkirk@home.com

-----  
Date: Sun, 23 May 1999 17:07:09 -0400  
From: polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)  
Message-Id: <199905232107.RAA07291@aa4rm.ba-watch.org>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: RE: BC-TRFs / tweets, 6SH7s

Dave to double that 455 kc IF there's gotta be non-linearity somewhere and I bet it's in a superhet'd diode detector.

boip

(excuuuuse me - but really inderesting the SX24 defilant bfo tale)

-----  
Date: Sun, 23 May 1999 16:30:57 -0500 (EST)  
From: "Roberta J. Barmore" <rbarmore@indy.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: "RJ Press"  
Message-ID: <Pine.SUN.4.10.9905231617110.27340-100000@indy1>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi!

A few folks have asked what (if anything) the near-mythical "RJ Press" presses. Not skirts and slacks, I can tell ya that (I'm a wash & wear kinda gal)!

...In fact, it's not even a business, just a hobby. Runs at a (small) loss, saving me endless paperwork.

The present product-line is:

"The Radio Amateur Newcomer" from 1935, \$9.80 + postage

"5 Meter Radiotelephony" from 1934, \$7.40 + postage

A 1930s-styled portable-mobile "minilog," 5.5" x 8.5", haven't priced 'em--any interest? Probably \$5.00 + postage.

(If you want a full-size 1930s logbook, buy it from QCWA--they have repro 1936 ARRL ones, with real red covers, very nice; and will sell 'em to any ham, you don't have to be a QCWA member. Much nicer than modern logbooks).

"The Sutter Files," which is still in prep stages; a lot of work, as it reprints \*all\* of Fred Sutter's QST articles. Price will be somewhere between "Newcomer" and "5 Meter." Hope to have it out by late summer. ARRL gave permission for a total press run of 200 copies so there should be plenty. (That's the only connection with the League, so don't bug 'em on the topic).

...The entire RJ Press lives in a couple of cardboard boxes and big manila envelopes and gets about fifteen minutes a day (plus layout and printing setup time on weekends). I have no idea why I do it--just happened when I made myself a workbench copy of "Newcomer" and did a couple extra for friends.

73,  
--Bobbi

KB9GKX "RJ" rbarmore@indy.net Roberta J. (Bobbi) Barmore  
FISTS #3388 \* G-QRP #10001 \* ARRL \* RSGB \* WIA  
Appreciator Of Vacuum-Tube Ham Gear and Vintage Keys

-----

Message-Id: <v03007801b36e17243c94@[208.255.75.62]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Date: Sun, 23 May 1999 12:36:45 -0800  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Scott Robinson <spr@earthlink.net>  
Subject: RE: BC-TRFs

>Scott Robinson wrote:

>

>> Besides, most sand state radios are not happy above about 7 MHz  
>> chez moi due to nearby array of 4 FM transmitters. Tube stuff  
>> with an RF amp just plain ignores them! Fortunately, 49M is  
>> generally the best SWBC band at my house.

>>

>> See, BAs are better...but we knew that.

Dave Newkirk replied:

>\*Of course\* you also knew this would get a rise out of me. :-D You haven't  
>mentioned the solid-state radios by type, but if the FM-affected sets you're  
>talking about are modern, up-conversion ham transceivers, the interference  
>you've experienced likely results from the construction of the radio, not the  
>presence of solid-state devices. An up-conversion radio with an IF in the  
>40-MHz range will have its image response in the FM band when you're  
>listening below 10 MHz or so. Insufficient shielding will allow strong  
>FM-band signals to be audible as squawky, distorted interference--just what  
>we'd expect to hear when detecting wideband FM with a diode or product  
>detector. A tube-based receiver with the same topology would be interfered  
>with no less if its shielding was similarly inadequate.

,

and Scott, never one to let someone else get the last word, further wrote:

The receivers in question are none of those modern ham receivers or transceivers. They are various American and European multi-band radios, mostly portable, and mostly not with metal cases. The tube stuff with no RF amp, a common European practice, also sees the FM. The clue is that it tunes past 'way faster than a real signal, so I presume it's harmonics of the LO beating with the FM carriers that cause the spurious reception.

The only up-converter radios I own are a Drake R-4A and a Stewart-Warner build R-390A, and course neither of them suffers from this problem.

At work I design stuff to be sold in Europe, among other places, and meeting the CE RF emission specs and susceptibility specs (put your product

in a 3v/m field 80 MHz-1GHz and it's supposed to ignore the RF completely)  
has certainly taught me a lot about sealing up packages for RF.

Regards,

Scott Robinson  
spr@earthlink.net

Junque is GOOD for you!

Scott Robinson  
spr@earthlink.net

Junque is GOOD for you!

-----  
Message-ID: <01BEA54A.94270260.w1kszt@tiac.net>  
From: "Richard W. Solomon" <w1kszt@tiac.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: WTD: ARRL Mobile Logbook  
Date: Sun, 23 May 1999 18:31:29 -0400  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

Looking for one or two, my mobile activity is filling up the old  
one. Anyone have any of the "Oldies" around.  
73, Dick, W1KSZ

-----  
From: Gary Gitzen <garyg@cup.hp.com>  
Message-Id: <9905232248.AA03795@hpgaryg.cup.hp.com>  
Subject: Estate sale  
To: Old Tube Radios <boatanchors@theporch.com>  
Date: Sun, 23 May 1999 15:48:30 PDT

Hi All,

I'm helping the widow of a silent key find loving homes for the  
remainder of his radio equipment, listed below. The owner took very  
good care of his equipment, in a non-smoking environment.

Asking prices are noted for some equipment. It is believed they are close to "current market value". Please feel free to make offers on all listed equipment. In a few cases, local pickup (San Jose, CA) is preferred. In all cases, buyer pays reasonable shipping and possibly packing costs. Preference given for local pickup in almost all cases. I will happily(?) provide additional details upon request. (I \_know\_ I'm going to regret that, sigh.)

Kenwood xcvrs were all known working & fully functional, April 1998. Will warrant functionality at delivery.

Gary Gitzen <garyg@cup.hp.com>  
Silly Cone Valley, Kalifornia  
Who now knows what results from saying "Hey, no problem! I'll help!"

o/-----cut here-----  
o\

A classic: Viking Ranger  
80, 40, 20, 15, 10 meters  
75W CW, 65W AM  
G-VG condx. No visible mods. Some scratches on rear panel. Band switch needs clean/lube, it's a bit sticky.  
Prefer local pickup, San Jose CA  
Asking price: \$250

Collins type 46159 Rcvr, 1.5-3, 3-6, 6-12 mc.  
G-VG condx, not CCA rating. No visible mods.  
Asking price: \$45

Collins COL-52245 Xmtr, 1.5-12 mc.  
Some corrosion bottom right front panel, probably from cat urine.  
G-VG condx (not CCA) except for corrosion, which makes it F-G.

Both of the above appear to be of FAA origin. No visible mods.  
Govt acceptance date on TX is 4/44

Power supply for above xmtr, homebrew, with mating connector & cable for TX.  
2X 5R4, choke, oil cap.  
Pwr xfmr 120 (115?) Pri  
1500/1200 VCT, 260MA  
6.3@3A  
6.3@5A  
5@4.5A



Strongly prefer sale as a set, with local pickup, San Jose, CA.

BC-348-P

Stromberg-Carlson, s/n 3141, suspect built 1947

Looks in VG condx

Includes what appears to be homebrew power supply for it.

Appears to have factory mod of added 6C4 in audio chain for more gain.

No visible mods, and that may be its problem. There is a second power "cable" tacked on to chassis power connector, presumably for testing & troubleshooting out of case. The files need to be rewired for 6.3V, or 24-26VAC provided for files.

One wire hanging loose from AVC/MVC switch.

Comes with photocopy of applicable section of \_Surplus Radio Conversion Manual\_

Asking price: \$50

Kenwood TS-520 SSB HF Xcvr + VFO-520 for split freq operation

120VAC & 13.8VDC operation

200W PEP, 160W CW (120W & 90W @ 13.8VDC input)

80, 40, 20, 15, 10 meters

VG-EX condx, with factory manuals, orig box, 12V pwr cable

Prefer local pickup, San Jose CA

Asking price: \$350

Kenwood TS-50S HF Xcvr

160, 80, 40, 30, 17, 15, 12, 10 meters TX

500kc-30mc RX

Three power settings:

SSB, CW, FM	100	50	10	W
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AM	25	12.5	2.5	W
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Includes Astron RS-20A power supply, 13.8VDC, 16A CCS 20A ICAS

VG-EX condx, with orig rcpt, factory manual & orig box for TS-50S

Prefer to sell as a pair, but will consider split.

Asking price: \$550

Kenwood TM-201B 2M FM Xcvr (mobile)

Two power settings, 100W & 5W

VG-EX condx, with mic, spkr, power cable, factory manual, orig box, mounting hdwe, orig rcpt.

Asking price: \$175

Kenwood TM-401B UHF (440) FM Xcvr (mobile)  
Two power settings, 25W & 5W  
VG-EX condx, with mic, spkr, power cable, factory manual, orig box,  
mounting hdwe, orig rcpt.  
See 440 roof mount antenna below  
Asking price: \$175

Kyokuto 2M FM XCVR  
1w/1W out; 13.5VDC in  
Mobile rig with mounting hdwe.  
Orig rcpt, w mic & power cable

Henry Radio "Tempo" model 51 2M handheld xcvr  
1.5W out  
Factory box & manual

Thompson-CSF regulated DC power supply.  
13.6V, 6A

Heath PS1175 Power Supply  
120/240 VAC in, 13.8 VDC @ 15A out  
Factory instruction sheet.

Heath HD1410 Keyer  
VG-Excellent condx, with factory manual. Known functional.  
Asking price: \$35

Heath "Twoer"  
Heath "Sixer"  
12VDC Vibrator Power supply  
Factory manuals for all.  
Haven't inspected closely, but look G-VG condx. No visible mods.  
They have been in storage for years. Operating condition unknown.  
Asking price: \$85 for the set

Heath GD-1B GDO, with all coils, 2-250 Mc  
VG condx. Works. Factory manual.  
Asking price: \$25

J-38 style key  
Bakelite base. Lionel? No manuf ID.  
Asking price: \$25

Cheap plastic key. Exc condx for what it is, but probably not worth postage.  
Free to good home with some local pickup item.

Vibroplex key, with carry box  
Chrome, s/n 154739  
VG-EX condx. Case "fair" because it needs the bottom reglued.  
Asking price: \$100

Bendix Model 262 Micro-Match Power & VSWR meter, with sensor  
10, 100, 1000 Watts full scale  
.5 - 225 mc

Heath HM-102 Power & VSWR meter  
200 & 2KW full scale  
Factory manual

Jones SWR bridge

BC-221N Hetrodyne Freq meter  
G-VG condx  
Copy of applicable portions of "Surplus Radio Conversion Manual"  
(1948) included

Hetrodyne Frequency Meter, type CBLC-7402B, with matching calibration book.

Power supply, homebrew(?), on Stancor chasis  
Xfmr Stancor PC-8412  
800VCT/200MADC  
5@3  
6.3CT@5  
Uses 5U4 or 5V3 rect  
Octal plug output.

Mosley TA-33 Tri Bander. Free to good home. Currently atop approx 20'

pipe "tower" in San Jose, CA. New owner to remove antenna \_and\_tower\_.  
Alum extension ladder available. Liability waiver required. Inspection  
strongly suggested.

N.B. Rotor below does \_not\_ go with the antenna.

CDR TR-44 Rotor & control box. Ham beam rated.

ARC5, 3-6 Mc. Hacked by attached power supply.

Hewlett-Packard model 200CD wideband osc, 5 cps to 600 Kc, 0 to >10V into 600R  
This is an interesting one. The rear case is "in the white", as in  
unpainted aluminum; strongly suspected to be a replacement [as in  
I've never seen one before in my 31+ years with HP.]  
Condx unk, but can test (and probably repair if needed/desired) to  
ensure functionality. Extra cost option: photocopy of my 200CD manual.

RCA M1-6206-G LoZ mic, on stand

Two pair headphnes, Trimm & Acme. Suspect 2K for Trimm.

440 mc roof mount mobile antenna

Qty 3 Powerstat 0-250V 6A variacs, no knob, no scale. Taps for 110V & 220V  
are readily available on the toroid, but not brought out. Approx 26 lbs.  
Local (San Jose, CA) delivery; I really don't want to pack and ship them..

Various tubes, many NIB/NOS, including two 7360. List available upon  
request to <garyg@cup.hp.com>

Heath manuals

    Cantenna

    HA-202A 2M RF amp

AARL Radio Amateur's Handbooks

    1932 F

    1950 F

    1957 G

    1969 VG

AARL Antenna Handbook, 1949, F

\_Surplus Radio Conversion Manual\_, Vol 1, Second edition, 1948. Good condx.  
Includes schematics and mods for BC-221, BC-342, BC-312, BC-348, BC-645  
BC-946B, SCR-274N (BC-453 series RX and BC-457A series TX), BC-624, BC-625,  
TBY, PE-103A, BC-1068A/1161A

Layfayette Radio catalog, 1959, F-G

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End of BOATANCHORS Digest 2557  
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